

SUMMARIZED MINUTES

of the

FOURTEENTH VALLEY-STATES COORDINATING COMMITTEE CONFERENCE

Andrew Johnston Hotel, Knoxville, Tennessee
Tuesday, April 2, 1940

<u>Table of Contents</u>	<u>Page</u>
0. Personnel of the Conference	1
1. Date and Place of Next Meeting.	3
2. Report of Experiment Station Committee on Methods of Measuring the Influence of Phosphorus on Crops and Livestock in the Cooperative Program	3
3. Report of Committee on Measuring Effectiveness of Methods of Extension Teaching in the Cooperative Program	4
4. Problems in Connection with the Production and Application of TVA Phosphatic Fertilizers.	5
5. Efficiency and Value of Potassium Metaphosphate	8
6. Additional TVA Phosphate for AAA Grants-of-Aid.	8
7. AAA Regulation Regarding Phosphate Grants on Small Grains as Nurse Crops	8
8. Problems in the Cooperative Program	10
9. Federal Appropriations for Extension and Experimentation. .	10
10. Increasing Rural Cooperatives Other than for Marketing. . .	10
11. Forestry Problems Affecting the States.	11
12. Soil Classification and Its Uses.	11
13. Relation of TVA, REA, and the States in Rural Electrification	12
14. Completion of the Affiliation of 4 Additional States. . . .	12
Appendix A	13
Appendix B	14

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Pursuant to call by the Coordinating Committee, the fourteenth regular semi-annual conference of the Valley-States Deans and Directors, officials of the Tennessee Valley Authority, and representatives of the U. S. Department of Agriculture, was held at the Andrew Johnson Hotel, Knoxville, Tennessee, on Tuesday, April 2, 1940.

A list showing dates and places of the 13 previous conferences is attached as Appendix A. (p. 13).

The meeting was called to order at 9:15 A.M. by Chairman Thomas P. Cooper of Kentucky.

A summary of the minutes of the Thirteenth Conference was given by the Executive Secretary of the Coordinating Committee, Dr. Carleton R. Ball.

O. PERSONNEL OF THE CONFERENCE

All of the seven Valley States, the Tennessee Valley Authority, and the U. S. Department of Agriculture, were represented. Station Director Dorman of Mississippi was unable to come because of Federal auditing of Station finances. Extension Director Brehm of Tennessee was obliged to be in Nashville on that date. Mr. Milton S. Eisenhower, Land-Use Coordinator of the U. S. Department of Agriculture, and newly appointed Department representative on the Coordinating Committee, was in attendance. At his request, Dr. C. W. Warburton, formerly Department representative, also was present.

By vote of the Conference, Deans and/or Directors of Extension from Arkansas, Florida, Louisiana, and South Carolina were invited to attend the Conference. As shown in the subjoined list, Dean Horlacher of Arkansas and Mr. C. B. Roark of Louisiana (representing Director Bateman) were present.

The list of those in attendance is as follows:

Alabama: Dean M. J. Funchess, Director of Experiment Station, Auburn
 Director P. O. Davis, Extension Service, Auburn.

Arkansas: Dean W. R. Horlacher, Fayetteville

Georgia: Director H. P. Stuckey, Experiment Station, Experiment
Director Walter S. Brown, Extension Service, Athens
Mr. S. G. Chandler, Assistant District Agent, Extension
Service, Athens
Mr. J. Wm. Fanning, Extension Farm Management, Athens

Kentucky: Dean and Director Thomas P. Cooper, Lexington

Louisiana: Mr. C. B. Roark (representing Director Bateman), Assistant
Farm Management Specialist, Agricultural Economics
Department, Baton Rouge

Mississippi: Director E. H. White, Extension Service, State College

North Carolina:
Dean and Director I. O. Schaub, Raleigh

Tennessee: Mr. J. H. McLeod, Assistant Director, Extension Service,
Knoxville
Director C. A. Mooers, Experiment Station, Knoxville
Mr. A. J. Sims, Extension Editor, Knoxville (Secretary of
Extension Committee)

Virginia: Director John R. Hutcheson, Extension Service, Blacksburg
Director A. W. Drinkard, Experiment Station, Blacksburg

Tennessee Valley Authority:
Dr. H. A. Morgan, Chairman of the Board
Director J. C. McAmis, Department of Agricultural Relations
Mr. Harry L. Brown, Assistant Director, Department of Agri.
cultural Relations
Mr. Neil Bass, Chief Conservation Engineer
Mr. George M. Rommel, Preliminary Investigation Division
Mr. E. O. Fippin, Agricultural Advisor
Mr. Arthur M. Miller, Director, Department of Chemical
Engineering

U. S. Department of Agriculture:
Mr. Milton S. Eisenhower, Land-Use Coordinator
Dr. James T. Jardine, Director of Research and Chief, Office
of Experiment Stations
Dr. C. W. Warburton, Deputy Governor, Farm Credit Adminis-
tration
Dr. Carleton R. Ball, Executive Secretary, Coordinating
Committee

1. DATE AND PLACE OF NEXT MEETING

Dean Schaub of North Carolina invited the conference to meet in that State in the fall of 1940. Mr. McAmis invited the conference to meet at Muscle Shoals in order to become more familiar with the problems at the experimental fertilizer plant. Dean Schaub pointed out that the Extension Directors, at their recent meeting in Charleston, S.C., had voted to hold an annual meeting each spring at the same place as the semi-annual Valley-States Conference. As they had just been in South Carolina in March, 1940, they probably would not wish to meet in North Carolina a year later.

On this presentation of facts, DEAN SCHaub MOVED that the next Valley-States Conference be held at the Hotel George Vanderbilt, Asheville, North Carolina, on Tuesday, October 1. Seconded and CARRIED.

2. REPORT OF EXPERIMENT STATION COMMITTEE ON METHODS OF MEASURING THE INFLUENCE OF PHOSPHORUS ON CROPS AND LIVESTOCK IN THE COOPERATIVE PROGRAM

The report of the Experiment Station Committee, composed of Director Stuckey (Chairman), Director Dorman, and Prof. T. B. Hutcheson, was called for. Chairman Stuckey stated that each Station had been asked to submit a summary report of its experiments from their beginning to the end of 1939. Material had been received from all States except North Carolina. Dean Schaub then stated that theirs would be prepared and submitted very soon. Chairman Stuckey then raised the four questions stated below. The trend of discussion and action taken, if any, are given.

a. Should the report of each Station have an author or be anonymous? No discussion and no action.

b. Should the Station reports cover only the fertilizer experiments or contain also reports on the cooperative terracing, processing of farm products, forestry activities, etc? Brief and incidental discussion indicated a preference for complete reports on all cooperative activities. No action was taken.

c. Should the reports of the two committees, Experiment Station and Extension (Test-Demonstration), be combined into a single report for purposes of use? Several members suggested that it probably would be better to consider the contents of both reports before deciding on their possible combination for use.

After hearing the report by the Extension Committee on measuring effectiveness of methods of extension teaching in the cooperative program, discussion of combining the reports was resumed.

Director Stuckey stated that his committee had considered the possibility of combining the two reports into one consecutive discussion of the fertilizer activities, including manufacture; experiment station tests in greenhouse, plot, and field; and test-demonstration results on unit farms and in areas, which logically would make one continuous story.

Director Stuckey moved that the two final reports be combined into one report. Motion was seconded (but never carried). Mr. Sims pointed out that the Extension-Committee report covered only methods and not results and that it was intended only for the information of the conference and not for publication. Others stressed the fact that the State summaries of test-demonstration results had not yet been obtained, and that it was these results which might be combined with the Station results into one final report.

It was stated that the first problem was to get the two sets of results, and the second was to get them out to the people. The first job, therefore, was to assemble the two sets of reports and prepare them in a popular and understandable form. Thereafter they could be combined into a single report.

d. Who should assemble, edit and prepare the reports for publication or other use?

It was MOVED BY DIRECTOR HUTCHESON, and seconded, that the Secretary of the Coordinating Committee take the assembled work of the two committees, determine what more (if any) material is needed, get that from the committees, and thereafter prepare the entire material for use. MOTION CARRIED.

MOVED BY DIRECTOR HUTCHESON that the Secretary take up with the Department of Agricultural Relations of the TVA the matter of obtaining technical and clerical help in preparing the final reports. SECONDED AND CARRIED.

(Director McAmis later appointed Messrs. George M. Rommel, Elmer O. Fippin, and L. A. Olson, of the Department of Agricultural Relations, as a committee to advise and assist the Secretary in preparing the State reports for use.)

3. REPORT OF COMMITTEE ON MEASURING EFFECTIVENESS OF METHODS OF EXTENSION TEACHING IN THE COOPERATIVE PROGRAM

The report of the Extension Committee, composed of J. C. Lowery (Chairman), F. S. Sloan, Ralph Kenney, and A. J. Sims (Secretary), was read by Mr. Sims, representing Chairman Lowery, who was unable to be present. Mr. Sims stated that the Committee had met at Knoxville on March 5 and 6 to outline general procedures and thereafter had written to the States. The full report is attached hereto as Appendix B (p.14). It contained several recommendations for further action by the States and the TVA, and one (No. 10) which is pertinent at this point, as follows:

"10. That each State proceed as it sees fit to record the changes that have occurred on Unit Test-Demonstration farms to date; that this record be supplemented by some measure of the effect on other farms in the community, the county, and the State; and that this report be prepared within a reasonable time and submitted to the Extension Committee and the Tennessee Valley Authority by the Respective States."

MOVED by DEAN SCHaub that the reports of the two committees be accepted, that both committees be commended for their work, and that both be continued to complete the task assigned. SECONDED AND CARRIED.

This adoption of the report of the Extension Committee carried with it the approval of their eleven recommendations, No. 10 of which provided for preparation and assembling of the test-demonstration results, as quoted above.

4. PROBLEMS IN CONNECTION WITH THE PRODUCTION AND APPLICATION OF TVA PHOSPHATIC FERTILIZERS

Mr. McAmis stated that there were some pressing problems at the fertilizer plant. Naturally, the results obtained by the States in their cooperative tests determined what products the plant should attempt to produce. Mr. Arthur M. Miller, Director of the Department of Chemical Engineering, had been asked to be present at the conference and at this point he presented a summary of the problems confronting them, as follows:

"Concentrated Superphosphate

"a. Superphosphate made from electric-furnace phosphoric acid does not carry the sulfur provided by ordinary superphosphate. This may be an important difference for soils deficient in sulfur, and the problem to determine is what should be done with respect to this deficiency. Is it of sufficient importance to justify supplementing our concentrated superphosphate with sulfur? If so, to what extent and in what form? Should these supplements be added to the superphosphate at the plant or at the farm in quantities appropriate to the local conditions?

b. Concentrated superphosphate in granular form can be produced at a slight increase in cost over the present method of manufacture. Is there any advantage in such a product? What is the optimum particle size for concentrated superphosphate?

c. In comparison with ordinary superphosphate, concentrated superphosphate as now produced contains less than one-half as much fluorine in proportion of the available P_2O_5 .

By heating the freshly-made concentrated superphosphate, the proportion of fluorine can be decreased even further. Would there be any advantage in so doing? If so, how much?

d. By heating concentrated superphosphate at an elevated temperature, it might be possible to produce a fertilizer in which about one-half of the available P_2O_5 is 'water soluble' and one-half 'citrate soluble.' What would be the advantages or disadvantages of such a product?"

"Calcium Metaphosphate"

"a. Calcium metaphosphate is produced in the form of hard, glassy lumps and can be ground to almost any desired particle size. However, fine grinding adds to the cost of manufacture. What is the optimum particle size for the grinding of calcium metaphosphate?

b. Calcium metaphosphate contains a very much smaller proportion of fluorine relative to the proportion of P_2O_5 than does superphosphate. To what extent is this an advantage?"

"Potassium Metaphosphate"

"a. The relative proportions of P_2O_5 to K_2O in this product may be varied from 1.5:1 (corresponding to potassium metaphosphate) to 0.75:1 (corresponding to potassium pyrophosphate). What is the most desirable composition in this range?

b. What is the optimum particle size of potassium metaphosphate? (See No. a under Calcium Metaphosphate.)"

"Fused Rock Phosphate"

"a. Fused rock phosphate corresponds rather closely to tricalcium phosphate in its percentages of P_2O_5 and CaO . Is the availability of the phosphate in fused rock affected by the acidity of the soil to a greater extent than is the case with superphosphate, in which the P_2O_5 is present as monocalcium phosphate? What is the effect of the application of limestone or slag to the soil on the availability of fused rock phosphate?

b. In the manufacture of fused rock phosphate, it is much more difficult to reduce the fluorine content to a very low figure (0.1 percent) than it is to reduce it to an intermediate figure (0.6 percent). What is the relationship between the fluorine content and the availability of the P₂O₅ in fused rock phosphate? How does the product containing 0.6 percent fluorine compare with superphosphate as regards availability?

c. In the manufacture of fused rock phosphate a certain proportion of silica is added in order to assist in the volatilization of fluorine. When the fused rock is used as fertilizer are the silicates contained therein to be regarded simply as inert fillers, or do they play a role in promoting the availability of the P₂O₅?

d. What is the optimum particle size of fused rock phosphate? (See No. a under Calcium Metaphosphate.)"

"Calcium Silicate Slag

"a. What is the optimum particle size of calcium silicate slag? (See No. a under Calcium Metaphosphate.) What is the relationship between particle size and the optimum rate of application?

b. Calcium silicate slag contains small percentages of P₂O₅ and fluorine. Because of the large rates of application of calcium silicate slag, the total quantities of P₂O₅ and fluorine are important when compared with the quantities applied in fertilizers. Is the P₂O₅ in calcium silicate slag available to growing plants? Is the fluorine an objectionable constituent?"

Mr. McAmis stated that the Authority had not attempted or intended to produce a mixed or complete fertilizer and asked if the conference wished the plant to add sulfur to the concentrated phosphates, stating that the concentration naturally would be reduced in proportion to the amount added. The alternative, of course, would be to have the sulfur added at the farm. Dean Cooper suggested that this question should be answered by the agronomists and Dean Funchess suggested the sending of a statement of the problems to the agronomists of the 7 State Experiment Stations. Dean Cooper suggested that it would be well to get the agronomists together, preferably at the fertilizer plant, for mutual consultation and stimulation. Dean Funchess suggested that the query first be sent to the agronomists at their Stations and that later they hold a meeting at the plant.

DEAN SCHAUB MOVED that Director Miller prepare a letter stating the problems to be considered and thereafter arrangements be made for the agronomists to meet at the plant. SECONDED AND CARRIED.

5. EFFICIENCY AND VALUE OF POTASSIUM METAPHOSPHATE

Director Brown asked as to the value of potassium metaphosphate and stated that he understood that Wisconsin had reported some 80% of their soils deficient in potash and phosphorus. Director Mooers stated that noticeably better results had been produced by potassium metaphosphate than by calcium metaphosphate, probably because the slower rate of solution gives the plants a better chance to get the material.

For Georgia, Dr. Stuckey read from the summary report of Station results, as follows:

"Pot test conducted with Iredell loam soil, pH 6.0, and with sand, during the winter of 1939-40, with cotton as the test crop, indicated that the TVA-prepared potassium metaphosphate should be a satisfactory source of phosphate and potash. In this test, the metaphosphate had an indicated superiority of 31 percent over ordinary superphosphate (18%) and muriate of potash balanced as to amounts of P_2O_5 and K_2O . This work is by the Chemistry Department of the Experiment Station."

6. ADDITIONAL TVA PHOSPHATE FOR AAA GRANTS-OF-AID

Mr. McAmis stated that Mr. F. W. Darner, Chairman of the Grants-of-Aid Committee of the AAA, had asked the TVA to supply more phosphate because AAA had been unable to get enough from the trade for use this spring. If the Authority could furnish more, out of that allotted to test demonstrations, it seemed preferable that it go to counties not yet having received TVA material. This seemed desirable under the provisions of the Act requiring equitable distribution of Authority materials, and he suggested that the States select such counties as would help to insure such an equitable distribution.

7. AAA REGULATION REGARDING PHOSPHATE GRANTS ON SMALL GRAINS AS NURSE CROPS

The Conference, at its 13th meeting, on October 3, 1939, voted to request the AAA to permit again, as formerly, the use of phosphate grants-of-aid on small grains when these are nurse crops for grasses and/or legumes (Conference Minutes, p. 5).

The Executive Secretary reported that he had discussed the problem with Mr. F. W. Darner, Chairman of the Grants-of-Aid Committee of the AAA, and with Mr. W. G. Finn, Director of the East-Central Division. From a letter of Mr. Darner, dated March 18, 1940, he read the following paragraphs:

"For the reasons outlined to you verbally, credit for this practice was eliminated from practically all State bulletins under the 1939 and 1940 Programs, even though it is recognized that this is a sound farming practice.

While no change can be made in the 1940 Program, the question can be considered for 1941 by the national Agricultural Adjustment Administration conference when it is held this summer to discuss the 1941 Program. We shall be glad to have you, as well as any other member of the Valley-States conference, attend our national conference and present your views on this question at that time."

The Executive Secretary further stated that both Mr. Darner and Mr. Finn stated that the chief reason for AAA discontinuance of this practice was the protests received from county agents and local fertilizer dealers. These protests were based on the feeling of local fertilizer dealers that they were losing a considerable part of their business, and consequently of their income, because of the increasing supplying of concentrated phosphates to farmers through the AAA and the cooperative program of the State colleges and the TVA. In some cases these dealers had protested to members of Congress, or to members of their State legislature, or to boards of county commissioners. Sometimes protests have been made to two or to all three of these agencies.

The intent of the protest, of course, was to inspire official action restricting such programs. In the case of protests to the county commissioners, the intended effect was to induce them to require that county agents, paid in part by county funds, should be restricted from assisting in these programs for the use of federally-supplied phosphates. The protests from county agents resulted from such activities and feeling within their counties. While the AAA believes thoroughly in using phosphates as grants-in-aid, it was willing to discontinue their use on such commercial crops as small grains, in order to disarm these criticisms and resulting protests.

Adjournment to 1:30 P.M. was taken at noon. At 1:30 P.M. the Conference reconvened with Dean Cooper presiding.

8. PROBLEMS IN THE COOPERATIVE PROGRAM

At this point Dr. H. A. Morgan, who had been invited to attend and address the Conference, discussed some of the agricultural problems facing the TVA and steps in the cooperative program of the States and the Authority for solving them.

In the discussion which followed, Dean Funchess pointed out that basic slag, although guaranteeing only 8% of P₂O₅, actually had about 11%. The TVA calcium-silicate slag has little phosphate content but the large quantity used may put more phosphate into the soil than a farmer would use in 5 years. Mr. McAmis stated that the area was short some 30,000 tons of phosphate needed to fill AAA applications at the present time. TVA had promised to provide AAA with 70,000 tons in 1940 and it was understood that the trade would be asked to furnish a still larger quantity than last year.

9. FEDERAL APPROPRIATIONS FOR EXTENSION AND EXPERIMENTATION

Few Bureaus escaped appropriation cuts; the SCS was cut \$3,500,000, of which \$200,000 was from research funds. Dr. Jardine stated that a general deficiency appropriation bill would not consider items which previously had been turned down by a congressional committee while considering a regular appropriation bill.

Research results usually do not get back to the people with the research tag still on them. Congress cannot visualize many items. Action agencies and the Extension Service are near to the people, while research is not. Action agencies must appreciate that their operations are based on research and stand up for research activities, otherwise they are more likely to face decreases.

Dean Cooper discussed the Cooley Bill for Federal financing of marketing activities by State Departments of Agriculture. He asked if a new bill had been introduced in Congress but it was stated that no sponsor had yet been found.

10. INCREASING RURAL COOPERATIVES OTHER THAN FOR MARKETING

Director White of Mississippi spoke on the need for increasing income through cooperative business enterprises, which enable farmers to save money. Director Hutcheson cited the Southern States Cooperative, which handles seeds, feeds, and fertilizers in Maryland, Virginia, and parts of West Virginia and North Carolina, and renders a large volume of service of high quality. Their business has increased from 1 million dollars to 13 million dollars a year and refunds to members were \$750,000 last year. It seems likely that they will reach a total of \$25,000,000 in 10 years. The GLF (Grange-League-Federation) already has a business of \$40,000,000 per year.

11. FORESTRY PROBLEMS AFFECTING THE STATES

Dean Horlacher of Arkansas stated that he was unable to get an allotment of research funds for farm forestry studies under the Norris-Doxey Act. Dr. Jardine stated that only \$25,000 was available for all States. Mr. Eisenhower added that this small sum had been allocated on a project basis, and not on a State basis. However, the Arkansas proposal could be considered again at the beginning of the 1941 fiscal year.

The discussion then shifted to certain provisions of the agricultural adjustment program. Director White of Mississippi stated that 9 counties in his State were experimenting with the AAA in certain forest management practices on a basis for payments. Numerous members of the Conference said that they would like to see payments made by the Triple A for good forest management as contrasted to tree planting. In Georgia, Director Brown said, 61 percent of the land already is in forests and he therefore felt that there has been an over-emphasis on planting and not enough emphasis on fire control and forest management to expand income.

It was pointed out that checking compliance on forest management practices would be exceedingly difficult under the AAA program. Director White desired an expression of opinion from the Conference, but Director Hutcheson made the point that the AAA requirements in forestry were not a subject for the Valley-States Conference.

12. SOIL CLASSIFICATION AND ITS USES

Mr. McAmis asked if we are done when the soil survey is completed or should the Colleges carry an educational campaign to get soil survey results to the farmer. In one State, legislation is being considered to permit all counties at or above a certain financial standing to levy a half mill tax to aid soil survey financially. Many amendments have been proposed and much interest shown. Mr. McAmis stated that not enough Federal money was available to publish the surveys promptly and that the TVA did not wish to invest in publication. He pointed out that much information on erosion, slope, stoniness, etc., can be obtained from the map before it is published. Director Hutcheson advocated coordination of all soil-survey and land-use mapping of the BAE, BPI, SCS, etc.

Mr. Eisenhower commented first on the point made by Mr. McAmis and then on the question of survey coordination raised by Director Hutcheson. He observed that the bottleneck at present is not in the printing of the soil surveys but in the drafting of the soil maps. The appropriation for soil surveys has been reduced in recent years, but printing funds have been increased. Therefore, the arrearage in publication is being overcome but the arrearage in drafting is increasing. The result is that there is as much as a 5-year delay between the completion of field work and the actual publication of the soil surveys.

As to the coordination of surveys: Mr. Eisenhower pointed out that several years ago the Department made arrangements for the coordination of all its fact-finding survey work, including soil surveys, conservation surveys, forest surveys, and others. In this arrangement, the Soil Survey Division of the Bureau of Plant Industry is recognized as the Federal authority on all questions of soil classification, correlation, and nomenclature. Today there is a common set of inspectors for the soil survey and the conservation survey, and therefore should be no overlapping or duplication.

It was generally agreed that the soil surveys were highly useful in sheet form, even though not published, but that publication was also essential in order that the survey could be used by a greater number of persons. Dr. Drinkard stated that publication of soil surveys is important because requests often are received for data which it is not possible for the Extension Service to furnish.

Virginia reported one project in which both SCS and the Soil Survey Division worked together. Mr. McLeod advocated the use of transparent overlay soil maps which can be placed upon a geographical map and thereby tell any farmer what type of soil he has. Mr. McAmis pointed out the advantages of having trained soil surveyors remain in the counties after the survey was completed and continue soil extension education among farmers because they know the soils of that county better than anyone else. Soil maps help to visualize the problems of counties and the needs for decentralized industry to supplement agricultural income. Rural industries also will help to get rural electrification, through increasing the number of customers. The inclusion of soil survey data in the States' summarized reports was suggested.

13. RELATION OF TVA, REA, AND THE STATES IN RURAL ELECTRIFICATION

Some adjustments seem desirable as between areas good and poor, respectively, in prospective customers. In Tennessee, some towns are loath to take on rural areas, or small towns to join a rural district, because of the possibility of increasing costs to town customers. In Virginia, there is some doubt if the REA charges are sufficient to cover all costs.

14. COMPLETION OF THE AFFILIATION OF 4 ADDITIONAL STATES

THE SECRETARY WAS INSTRUCTED to follow up the negotiations begun more than a year ago and, if these four States are so minded, to obtain their signatures to the three-way cooperative agreement.

On motion, the Conference adjourned.

Respectfully submitted

(Signed) Carleton R. Ball,
Executive Secretary

VALLEY STATES CONFERENCES

of

LAND-GRANT COLLEGE DEANS AND DIRECTORS,

TENNESSEE VALLEY AUTHORITY OFFICIALS, and

U. S. DEPARTMENT OF AGRICULTURE REPRESENTATIVES

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<u>No.</u>	<u>Date</u>	<u>Place</u>	<u>Minutes</u>
1.	1933		
2.	1933, October 7	Knoxville, Tennessee.	Typed, 1 p. Funchess letter, 1 p.
3.	1934, July 6-7	Chattanooga, Tennessee.	Typed, 5 pp.
4.	1934, October 27	Muscle Shoals, Alabama.	Mimeographed, 13 pp.
5.	1935, December 12	Chattanooga, Tennessee.	Typed, 15 pp.
6.	1936, June 26-27	Chattanooga, Tennessee.	Mimeographed, 20 pp.
7.	1937, February 6	Knoxville, Tennessee.	Typed, 5 pp.
8.	1937, July 10	Knoxville, Tennessee.	Typed, 10 pp.
9.	1937, November 3	Knoxville, Tennessee.	Typed, 5 pp.
10.	1938, April 25	Knoxville, Tennessee.	Typed, 12 pp.
11.	1938, October 4	Atlanta, Georgia.	Typed, 10 pp.
12.	1939, April 4	Birmingham, Alabama.	Typed, 9 pp.
13.	1939, October 2	Chattanooga, Tennessee.	Typed, 9 pp.
14.	1940, April 2	Knoxville, Tennessee.	Mimeographed, 18 pp.

DISTRICT SUPERVISORS' CONFERENCE

1936, August 8-9 Knoxville, Tennessee. Typed, 7 pp.

REPORT OF THE COMMITTEE
ON MEASURING THE EFFECTIVENESS OF METHODS OF EXTENSION TEACHING
IN THE COOPERATIVE PROGRAM WITH THE TENNESSEE VALLEY AUTHORITY

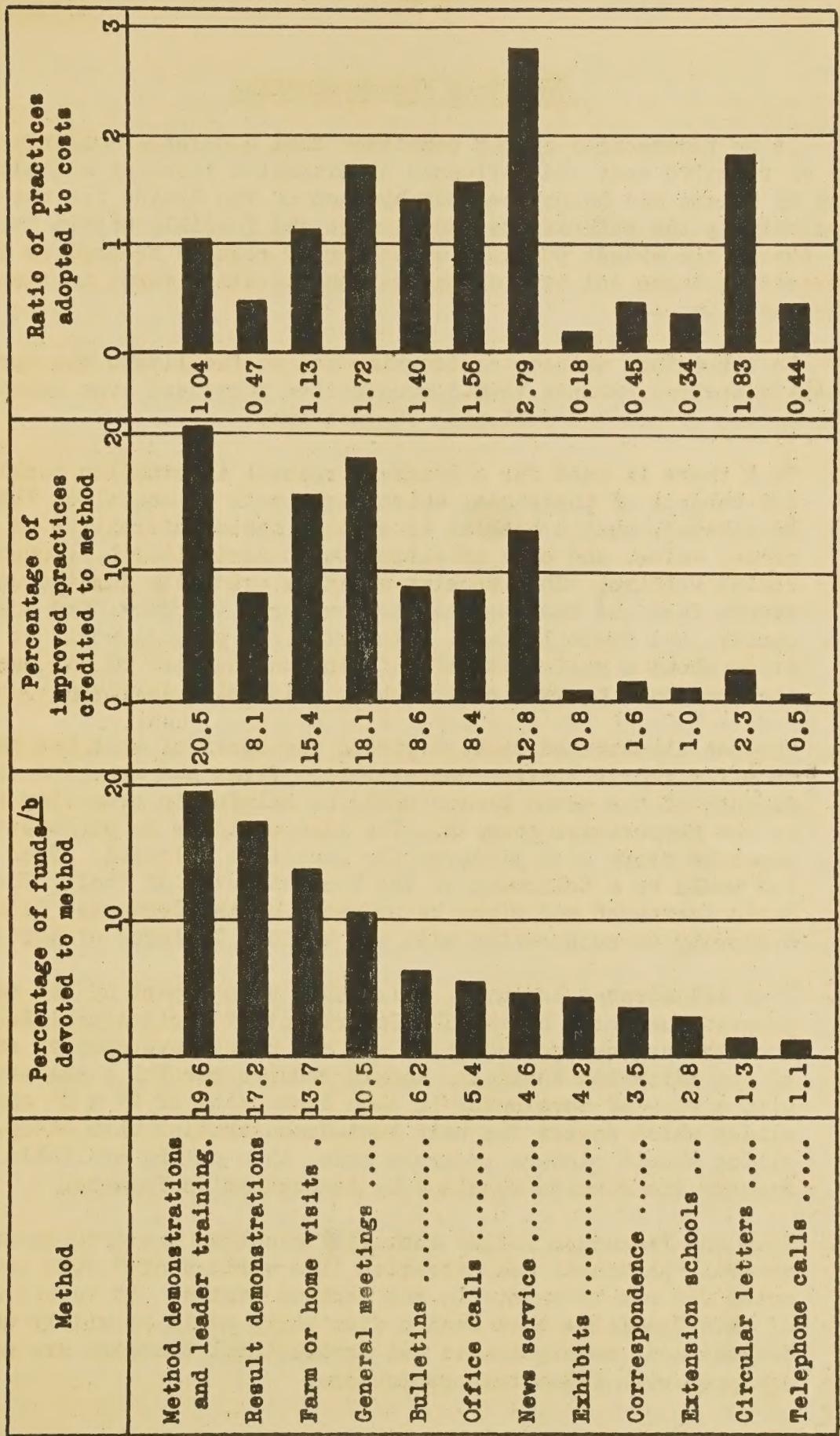
The Committee on Measuring the Effectiveness of Methods of Extension Teaching in the Cooperative Program with the Tennessee Valley Authority, composed of J. C. Lowery, Extension agronomist, Alabama, Chairman; Fred S. Sloan, district agricultural agent, Franklin, N. C.; Ralph Kenney, Extension agronomist, Kentucky; and A. J. Sims, Extension editor, Tennessee, met in Knoxville on March 5 and 6, 1940.

After organization of the committee and a brief discussion of its functions, the committee began a study of reports submitted by the various States on methods of Extension teaching used in the cooperative program. This study showed that the methods used were rather uniform throughout the several States and in the main were the same, intensified perhaps, as have been used by the Extension Service with variations for a number of years. These are:

1. Selection and development of local leaders, - demonstrators.
2. Method and result demonstrations, - Unit test-demonstration farms.
3. Meetings at demonstration farms to study results.
4. Farm and home planning meetings centered around demonstrations.
5. Community and county tours to demonstration farms.
6. Community organizations built around Unit test-demonstrations.
7. Illustrated lectures, - use of slides, film strips, and motion pictures.
8. Newspaper publicity.
9. Use of circular letters and available publications and bulletins.
10. Radio talks.
11. Fair exhibits.
12. Coordination of the program with regular Extension programs and programs of the various agencies of the United States Department of Agriculture to bring about the greatest possible accomplishment in agricultural improvement, not only on the Unit test-demonstration farms but on farms in general in the various communities and counties, and in the State as a whole.

After considerable discussion of the reports and a careful study of the various methods employed, as summarized above, it was the opinion of the Committee that it accept the study made by M. C. Wilson and H. J. Baker, in Extension Service Circular 315, published in November, 1939, and entitled "Training Extension Workers For The Job" (See Figure 1, Relative Cost and Influence of Extension Teaching Methods) and also the material in U. S. Department of Agriculture Technical Bulletin No. 106, published in February, 1930 (See Figure 4, page 9), as a measure of the relative effectiveness of these various methods in awakening interest of farmers in the cooperative program and in bringing about the widest possible adoption of recommended practices by farmers in general in the various communities, counties, and States.

Figure 1.-Relative cost and influence of extension teaching methods^a



^a Baker, H. J., and Wilson, M. C. Relative costs of extension methods which influence changes in farm and home practices. U. S. Dept. Agr. Tech. Bull. 125, 30 pp., illus. Washington, D. C. 1929.

^b Approximately 9 percent of funds not chargeable to the teaching methods listed have been omitted.

Committee Recommendations

It is recommended by the committee that a careful analysis of the study of relative cost and influence of Extension teaching methods, published by Wilson and Baker, be made by each of the States for the purpose of determining the methods most applicable and feasible within the State for securing the widest possible extension of results secured on unit test-demonstration farms and area demonstrations to other farms in the community, county, and State.

To strengthen methods of teaching and to facilitate the spreading of results secured on unit test-demonstration farms and area demonstrations, the committee offers the following suggestions.

1. That there is need for a general regional information booklet on the subject of phosphate, which might well be entitled, "Why Phosphate", such a booklet to contain basic information on the place, value, and uses of phosphate in agricultural, economic, and social welfare. This booklet would be primarily for the use of county farm and home agents, agricultural teachers, and community, county, and State leaders. Its principal purpose would be to bring about a uniformity of thinking on the part of all leaders in the phosphate program on the basic principles involved.
2. That an illustrated booklet giving the story of what has happened on a few representative demonstration farms and area demonstrations in each of the seven States would be helpful in promoting interest in the cooperative program. The idea would be to prepare a separate story with pictures for each farm selected. Such a booklet would be a follow-up of the booklet entitled "Soil, The Nation's Basic Heritage" and might be prepared by the Tennessee Valley Authority in cooperation with the various Colleges of Agriculture.
3. That illustrated lectures, which have been a part of the education program conducted by the TVA Department of Agricultural Relations from the beginning, and which now are being developed by several of the Extension Services, should receive careful consideration with a view of developing in each State sets of 2" x 2" color slides which depict the unit test-demonstration farm story. Such slides should picture progress made, thus making available to all farmers the results obtained by demonstration farmers.
4. That the Tennessee Valley Authority consider the development of a general "phosphate demonstration film strip story" with lecture notes for use by agents in the various States. It is the opinion of this Committee that such a film strip would be widely used, because most county agents and agricultural teachers are now equipped with film-strip projectors.

5. That a colored motion picture with recorded sound, -- music and voice of interpreter, -- be developed by the TVA in cooperation with the States desiring the same, and also that the development of a rural electrification film for general use in the States be considered.
6. That the TVA Information Office cooperate with the various State Extension editors in developing "demonstration farm" and "area demonstration" feature stories and other information material for the press, to be distributed according to the memorandum of understanding.
7. That consideration be given to the development of a series of radio broadcasts with Valley Stations, using demonstration farmers, county agents, and leaders on the programs.
8. That the TVA Information Office consider working up basic materials, in cooperation with the State Extension Services, for use at county, district, and State fairs.
9. To further determine the effectiveress of methods of Extension teaching being uscd, it is recommended that greater effort be made by each State to keep records on the number of people visiting demonstration farms, number and attendance of meetings held at demonstrations, number of tours held and number of persons making them; number of news stories published; number of radio talks given and response received; number of illustrated lectures, use of slides and motion pictures; spread of influence to other farms and reactions of other farmers in the area; visible improvements in farms, homes, and communities, and evidence of human growth and development.
10. That each State proceed as it sees fit to record the changes that have occurred on Unit test-demonstration farms to date; that this record be supplemented by some measure of the effect on other farms in the community, the county, and the State; and that this report be prepared within a reasonable time and submitted to the Extension Committee and the Tennessee Valley Authority by the respective States.
11. In conclusion, this Committee concurs with the action of the Research Committee in recommending that personnel assistance be provided by the TVA for analyzing and evaluating these data wherever the task is too extensive for the regular institutional personnel.

Signed by
the Committee

J. C. Lowery, Chairman, Alabama
A. J. Sims, Secretary, Tennessee
Fred S. Sloan, North Carolina
Ralph Kenney, Kentucky

